OPEN B LEG OF CHANNEL
NO. 1 CROSSBAR DIAL OFFICES

CONTENTS PAGE

1. GENERAL

1.01 This section describes the originating trouble indication that is received when an open B leg of a channel is encountered. A false indication that the originating marker A and C relays have been shunted is given, except where the originating trouble indicator has been modified to provide high resistance A and C relays, connected to 24-volt potential.

2. INDICATIONS OF TROUBLE CONDITION

2.01 The trouble indicator records indicate by the lighted BK lamp that the channel B leg check has been made, i.e., that the district link and connector JC- relay has been operated. As the SL and S trouble indicator lamps are not lighted, an open channel B leg is indicated. Since the A and C lamps are not lighted, the indication infers that the B leg was closed to shunt the marker A and C relays. The latter indication, however, is false.

2.02 Where the originating trouble indicator has been modified to provide high resistance A and C Relays, connected to 24-volt potential, a proper indication will be given, i.e., the A and C lamps lighted with the SL and S lamps not lighted.

3. REACTION DUE TO TROUBLE

3.01 There is no service reaction resulting from this trouble, since the calls that encounter the open channel condition are completed on second trial with a different channel involved.

4. IMMEDIATE PROCEDURE TO FOLLOW

4.01 Analyze the trouble indicator records. Since it is apparent the channel is defective, remove the channel from service.

5. ANALYSIS OF TROUBLE

5.01 An explanation of the circuit functions resulting in the displays shown, is as follows: When the B leg of a channel is open, for example, at the contact of the district link and connector JC- relay, the originating marker A and C relays are not shunted. The open contact at the JC- relay prevents the district link secondary and office link primary hold magnets from operating, thus opening the A and C relay shunt path.

5.02 With the originating marker A and C relays remaining in an operated condition, the marker SL and S relays cannot operate. The path for operating the A and C relays in the trouble indicator is opened when the marker AC1 relay releases, which occurs when the marker A and C relays operate. The TPK, TCK or other marker charge checking relays, as indicated by the associated trouble indicator lamps, operates through the normally made contacts of the marker AC1 relay, thus indicating that the marker A and C relays had operated.

5.03 If the originating trouble indicator circuit is provided with the high resistance A and C relays, connected to 24-volt potential, these relays will operate either to ground or to 48-volt potential. The circuit condition will be such that if the marker A and C relays are not shunted, the trouble indicator A and C lamps will be lighted, thus providing a proper trouble indication.

6. SUGGESTED PROCEDURE FOR LOCATING AND CLEARING TROUBLE

6.01 Check the district link S lead, which is referred to above as the channel B leg, through the equipment involved, as is indicated by the trouble indicator record.

7. TROUBLE CONDITIONS CAUSING REACTIONS MAY BE LISTED BELOW

7.01 Open at No. 15 contact of district link and connector JC-relay.

FORM E-2623 7-39

ORIGINATING TROUBLE INDICATOR RECORD
CROSSBAR OFFICES

OFFICE _____

DATE _____ SHEET NO. _____

NO.	TI	CT	DT	DR	GO	G 100	DL-GO	DL-G100	CF	CN	SN	OF	TL	KEL	KOL	KER	KOR	G	GT1	GT3	GS	DF	SW	M	JC	P	CHL	CHR	Z	ZCK	ZO	ZL	ZK	PS1	NC1	OT1	TC1	TCK	TP1	RP1	TPK	ZR	A	B	C	D	F	AR
1	✓			3								0	2		0							6	2	4	1	7		0				✓				✓	✓			✓						
2	✓			3								0	4			0						6	3	5	1	7		0				✓			✓		✓		✓							
3	✓			4					3	0	2	0	12		8			1				6	1	5	1	7		0				✓				✓	✓		✓			4	0	5	5	5
4	✓			4					3	1	1	0	2			5		7	✓			6	1	6	1	7		0				✓		✓					✓			4	0	4	5	2
5																																													
6																																													

Column A - Trouble indication.

Column B - Any marker.

Column C, E, G, H, I, J, K, L, N, O, P - Have no significance.

Column D - Note same office frame.

Column F - Note same district frame and channel.

Column M - Lighted BK lamp indicates district link and connector (JC-) relay has operated for "B" channel check. Unlighted A and C lamps indicate marker (A) and (C) relays have not been shunted. The latter indication is false.

Note: If the trouble indicator has been modified, as described in the section, the A and C lamps will be lighted in addition to those shown. This will give the proper trouble indication.

A B C D E F G H I

NO.	OF	TP	EA	LA	SGR	CKG	K4	KS	SPE	SPO	NSE	NSO	DK	AK	TKE	TK	SR	RL	MS	CK	BK	CHE	A	C	S	SL	B	MR	SIK	MRL	ZS	Z	OT	TC	TP2	NM	RO	TBS	CRL	DT3	MR1	TRL	EC	X	SDT	OB	SD	SD1	OG	SO	CR	CL	TW	TIME
1											✓	✓	✓	✓			✓		✓	✓	✓							✓																✓																3:05 PM
2											✓	✓	✓	✓			✓		✓	✓	✓							✓																✓																3:10 PM
3						✓	✓	✓			✓	✓	✓	✓		✓	✓		✓	✓	✓							✓																✓					✓	✓			✓	4,5	-		3:14 PM
4						✓	✓	✓			✓	✓	✓	✓		✓	✓		✓	✓	✓							✓																✓					✓	✓			✓	4	-		3:19 PM
5																																																								
6																																																								
7																																																								

Analysis of Indication. Refer to section.

Immediate Procedure to Follow. Remove defective channel from service.

Procedure for Locating and Clearing Trouble. Check the district link "S" lead through the equipment involved, as shown by the trouble indicator record.

J K L M N O P